Attachment 1

Status of Adopted Total Maximum Daily Loads for Salt and Boron in the San Joaquin River and Dissolved Oxygen in the Deep Water Ship Channel Portion of the San Joaquin River – 5 August 2005

As demonstrated during the adoption process, the Basin Plan Amendments and Total Maximum Daily Loads (TMDLs) for salinity and boron in the San Joaquin River (SJR) and dissolved oxygen in the Deep Water Ship Channel (DWSC) portion of the San Joaquin River at Stockton are controversial and involve a large number of statewide interested parties. They also have elements related to the State Water Board's on-going periodic review of the 1995 Water Quality Control Plan for the San Francisco Bay/Sacramento-San Joaquin Delta Estuary (Bay-Delta Plan). This review includes, among other things, review of the water quality objectives for salinity and dissolved oxygen, upon which the SJR TMDLs are based. This staff report describes elements of the Bay-Delta Plan periodic review and how Regional Board staff efforts on further development and implementation of the salt and boron, and dissolved oxygen TMDLs are affected by this review.

Bay-Delta Plan Periodic Review

A series of public workshops held by the State Water Board to solicit comments on the periodic review ended on 22 March. Among other things, information was presented at these workshops related to the need for changes to flow and salinity objectives in the Bay-Delta, including flow and salinity objectives for the SJR at the Airport Way Bridge near Vernalis. Various parties presented information that supported raising, lowering, or maintaining unchanged, the present SJR near Vernalis electrical conductivity (salinity) standard. No information was presented to support changing the existing dissolved oxygen objectives in the DWSC. Parties also provided information on changes in SJR hydrology and its effect on water quality.

Based upon Regional Board staff review of comments and exhibits submitted to the State Water Board, insufficient information was presented to support changing the existing Vernalis salinity objective. Also based on our review, no new information relevant to the recently adopted TMDLs was submitted to the State Water Board during the periodic review. Regional Board staff comments to that effect were provided to State Water Board staff. State Water Board Division of Water Rights staff have worked closely with us during the development of the TMDLs and have expressed no concern even though these TMDLs have elements related to the Bay-Delta Plan and the water rights decision (D-1641) that implemented the water rights components of that plan. We have also worked closely with the Division of Water Quality who have also not expressed concern over the Basin Plan Amendments or technical basis of the two TMDLs. A State Water Board workshop to consider the TMDLs would provide an opportunity to the public, Regional Board staff, and the State Water Board to evaluate if any new information would have a bearing on the State Water Board's approval of these TMDLs. The State Water Board would likely remand the TMDLs to the Regional Board if it determines that new and relevant information is now available that was not available during the Regional Board's development of the TMDLs.

Phased Nature of TMDLs

Both the salt and boron, and dissolved oxygen TMDLs are phased. The salt and boron TMDL is phased to first establish a framework for load allocations and a control program to comply with the more readily attainable Vernalis salinity objectives. The framework includes: 1) allocations and responsibility for attaining them for point and nonpoint source discharges; 2) responsibility of the United States Bureau of Reclamation to comply with allocations; and 3) flexibility to comply with allocations through use of real time management. These elements are included in the first phase TMDL now awaiting State Water Board approval. This framework, if approved, will be applied to the second phase of the TMDL that establishes salinity objectives in the SJR from Mendota Dam to Vernalis. The dissolved oxygen TMDL is phased to allow for the gathering of information and completion of studies needed to make more detailed allocations for loads of oxygen demanding substances and their precursors. Current staff efforts on these TMDLs are partially dependent upon the approval of the initial phases by the State Water Board (and subsequently by USEPA) because of the phased nature of these TMDLs.

Status of Current TMDL Effort

Current staff efforts for the dissolved oxygen TMDL include: 1) working with the California Bay Delta Authority (CBDA) to provide direction and oversight of implementation, studies, and modeling efforts being conducted by entities responsible for the impairment (and their partners); 2) modeling the effect of potential changes to DWSC hydrology; 3) refinement of load allocations; 4) development of waste discharge requirements and waiver conditions to implement the dissolved oxygen control program 5) development of conditions to be included in water quality certifications for any new hydromodification projects such as the South Delta Improvement Project (SDIP); and 6) input to the CBDA, Department of Water Resources, and their consultants, on the development of an aeration demonstration project in the DWSC.

Current staff efforts for the salt and boron TMDL include: 1) development of upstream salinity objectives and load allocations to achieve these objectives; 2) determination of the minimum flows needed to attain these objectives if they cannot be met through load reductions alone; 3) development of waiver conditions to implement the salinity control program; and 4) development of a management agency agreement with the USBR to address their contribution to the impairment.

Staff is participating with and providing direction to the San Joaquin River Water Quality Management Group regarding their efforts to develop cooperative solutions to achieve the water quality objectives targeted by the salt and boron, and dissolved oxygen TMDLs. Staff is also participating in a peer review of the SJR component of the CALSIM II model. CALSIM II is a model developed jointly by the California Department of Water Resources (DWR) and U.S. Bureau of Reclamation (USBR) for the planning and management of the State Water Project and the federal Central Valley Project. Preliminary CALSIM II model results have been presented to the State Water Board as part of their periodic review to support relaxation in flow and water quality controls in the Bay-Delta Plan. CALSIM II results will also have bearing on the subsequent phases of TMDL development in the SJR Basin.